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Claims 1-14 (Canceled)

Claim 15 (Currently Amended): A method for the detection of a prion disease within a subject suspected of suffering from such a disease, the method comprising:

(i) contacting a sample from said subject with ~~a peptide or a protein selected from the group consisting of Apolipoprotein B or a peptide fragment thereof; and a fragment of Apolipoprotein B;~~

(ii) contacting the preparation obtained in step (i) with PrP^C or a PrP^C containing mixture; and

(iii) determining the presence and/or an amount of PrP^{Sc} in said sample;

wherein the presence of PrP^{Sc} in said sample is indicative of the presence of prions in said subject.

Claim 16 (Cancelled)

Claim 17 (Previously Presented): The method of claim 15, wherein the prion disease is bovine spongiform encephalopathy (BSE).

Claim 18 (Previously Presented): The method of claim 15, wherein the prion disease is a Creutzfeld-Jacob disease.

Claim 19 (Currently Amended): A method for the detection of PrP^{Sc} within a sample, comprising:

(i) contacting said sample with Apolipoprotein B or a peptide fragment thereof a peptide or a protein selected from the group consisting of Apolipoprotein B; or a fragment of Apolipoprotein B;

(ii) contacting the sample obtained in (i) with PrP^C or a PrP^C containing mixture;

and

(iii) determining the presence and/or an amount of PrP^{Sc} in said sample, wherein the presence of PrP^{Sc} indicates that said the sample contains PrP^{Sc} .

Claim 20 (Currently Amended): A method for identifying, in a sample, a compound which modulates the transition of PrP^C into PrP^{Sc} , comprising:

(i) contacting said sample with ~~a peptide or a protein selected from the group consisting of Apolipoprotein B or a peptide fragment thereof; or a fragment of Apolipoprotein B;~~ in the presence of said modulatory compound and (b) in the absence of said compound;

(ii) contacting the preparation obtained in step (i) a and (i) b with PrP^C or a PrP^C containing mixture; and

(iii) determining the amount of PrP^{Sc} (a) in the presence of said modulatory compound and (b) in the absence of said modulatory compound,

wherein the presence of PrP^{Sc} identifies a compound that modulates the transition of PrP^C into PrP^{Sc} .

Claim 21 (Previously Presented): The method of claim 15, wherein the peptide or the protein contains the sequence of SEQ ID NO: 3.

Claim 22 (Previously Presented): The method of claim 15, wherein the peptide or the protein has a molecular weight from 30 and 40 kDa and has a sequence selected from the group of Apolipoprotein B between positions 3201-3558, 3548-3905, 3201-3905, 3291-3558, 3548-3815, and 3291-3815.

Claims 23-28 (Canceled)

Claim 29 (Currently Amended): The method of claim 15, wherein the protein is Apolipoprotein B or a fragment thereof consisting of a peptide fragment of Apolipoprotein B between positions 3201-3558, 3548-3905, 3201-3905, 3291-3558, 3548-3815, or 3291-3815.

Claim 30 (Previously Presented): The method of claim 15, wherein the peptide or the protein forms a complex with a LDL receptor.

Claim 31 (Previously Presented): The method of claim 15, wherein the peptide or the protein contains the sequence of SEQ ID NO: 3.

Claim 32 (Previously Presented): The method of claim 15, wherein the peptide or the protein has a molecular weight from 30 and 40 kDa and is a fragment of Apolipoprotein B comprising the consecutive amino acid residues between positions 3201-3558, 3548-3905, 3201-3905, 3291-3558, 3548-3815, or 3291-3815.

Claim 33 (Cancelled)

Claim 34 (Currently Amended): The method of claim 19, wherein the protein is Apolipoprotein B or a fragment thereof consisting of a peptide fragment of Apolipoprotein B between positions 3201-3558, 3548-3905, 3201-3905, 3291-3558, 3548-3815, or 3291-3815.

Claim 35 (Previously Presented): The method of claim 19, wherein the peptide or the protein forms a complex with a LDL receptor.

Claim 36 (Previously Presented): The method of claim 19, wherein the peptide or the protein contains the sequence of SEQ ID NO: 3.

Claim 37 (Previously Presented): The method of claim 19, wherein the peptide or the protein has a molecular weight from 30 and 40 kDa and is a fragment of Apolipoprotein B comprising the consecutive amino acid residues between positions 3201-3558, 3548-3905, 3201-3905, 3291-3558, 3548-3815, or 3291-3815.

Claim 38 (Previously Presented): The method of claim 19, wherein the sample is obtained from a subject suspected of having a prion disease selected from the group consisting of bovine spongiform encephalopathy (BSE) and Creutzfeld-Jacob Disease (CJD).

Claim 39 (Currently Amended): The method of claim 20, wherein the protein is Apolipoprotein B or a fragment thereof consisting of a peptide fragment of Apolipoprotein B between positions 3201-3558, 3548-3905, 3201-3905, 3291-3558, 3548-3815, or 3291-3815.

Claim 40 (Previously Presented): The method of claim 20, wherein the peptide or the protein forms a complex with a LDL receptor.

Claim 41 (Previously Presented): The method of claim 20, wherein the peptide or the protein contains the sequence of SEQ ID NO: 3.

Claim 42 (Previously Presented): The method of claim 20, wherein the peptide or the protein has a molecular weight from 30 and 40 kDa and is a fragment of Apolipoprotein B comprising the consecutive amino acid residues between positions 3201-3558, 3548-3905, 3201-3905, 3291-3558, 3548-3815, or 3291-3815.

Claim 43 (Previously Presented): The method of claim 20, wherein the sample is obtained from a subject suspected of having a prion disease selected from the group consisting of bovine spongiform encephalopathy (BSE) and Creutzfeld-Jacob Disease (CJD).

Claim 44 (Previously Presented): The method of claim 20, wherein determining the amount of PrP^{Sc} in the sample comprises performing a protein misfolding cyclic amplification (PMCA) assay.

Claim 45 (Previously Presented): The method of claim 44, wherein the sample is a normal brain homogenate containing PrP^C and substrate.

Claim 46 (Previously Presented): The method of claim 44, wherein the sample is lipid rafts from an infection-sensitive neuroblastoma cell line N2a containing PrP^C and substrate.

Claim 47 (Previously Presented): The method of claim 20, which comprises determining the amount of PrP^{Sc} in the sample by performing a protein misfolding cyclic amplification assay (PMCA); and

wherein the protein is Apolipoprotein B, and

wherein the sample is lipid rafts from infection sensitive neuroblastoma cell line N2a that contain normal PrP^C and substrate.

Claim 48 (Previously Presented): The method of claim 20, wherein said modulatory compound is an antagonist of Apolipoprotein B.

Claim 49 (Previously Presented): The method of claim 20, wherein said modulatory compound is an antibody that binds to Apolipoprotein B.

Claim 50 (Previously Presented): The method of claim 20, wherein said modulatory compound is a LDL-receptor antagonist.

Claims 51-57 (Cancelled)

Claim 58 (Currently Amended): A method for the detection of PrP^{Sc} in a biological sample comprising:

(i) contacting a sample from a subject exposed to a prion with ~~a peptide or a protein selected from the group consisting of Apolipoprotein B or a peptide fragment thereof; a fragment of Apolipoprotein B;~~ a peptide or a protein selected from the group consisting of Apolipoprotein B or a peptide fragment thereof;

(ii) contacting the preparation obtained in step (i) with PrP^C or PrP^C containing mixtures; and

(iii) determining the presence and/or an amount of PrP^{Sc} in said sample, wherein the presence of PrP^{Sc} in said sample is indicative of the presence of prions in the sample.

Claim 59 (Previously Presented): The method of claim 58, wherein said subject is human and has, or is at risk of developing, vCJD.